

**PATENT APPLICATION OF**  
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**FOR**  
**MULTI-CHANNEL CONTAINER**

**BACKGROUND-FIELD OF INVENTION**

The present invention relates to a multi-channel single-tube sealed container and applicator.

**BACKGROUND-DESCRIPTION OF RELATED ART**

Many medications, chemicals, and adhesives require the mixture of two or more substances just before application to form the final product that will be applied or used. Common examples of these types of products are hair dyes and quick dry adhesives. The substances must be kept separate until just before the product is to be applied or used. Generally the substances must be carefully mixed in a fixed proportion. Often times, once the substances are exposed to the atmosphere, it must be used completely, and any remaining

substances that are not used must be discarded and cannot be stored. For these reasons, most of the packaging for these types of products are sealed in separate small airtight containers.

## SUMMARY OF THE INVENTION

The present invention is a multi-channel single-tube sealed container and applicator that is easy to package, convenient, easy to use, easy to transport, sanitary, economical, and self-contained. The present invention is not only a container but can also be used as the applicator. Furthermore, the present invention eliminates the tedious task of measuring the proper proportion of the substances required for application.

The present invention comprises of a multi-channel single-tube sealed container and applicator that defines multiple channels within its body that may contain different substances in each channel and that is sealed on both ends. A score is formed at a predetermined distance from each sealed end of the multi-channel single-tube sealed container and applicator such that when the multi-channel single-tube sealed container and applicator is bent it will break open at the score discharging the substances in the channels.

## BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 shows the housing 1 of the multi-channel single-tube sealed container and applicator before the ends 5, 6 are sealed.

Figure 2 shows the end view of the housing 1 of the multi-channel single-tube sealed container and applicator.

Figure 3 shows the multi-channel single-tube sealed container and applicator with one of its ends 5 sealed.

Figure 4 shows the multi-channel single-tube sealed container and applicator with one of its ends **5** sealed and its channels **2, 3** filled with different substances.

Figure 5 shows the multi-channel single-tube sealed container and applicator with both ends **5, 6** sealed after its channels **2, 3** are filled with different substances.

Figure 6 shows the multi-channel single-tube sealed container and applicator with scores **7, 8** formed at a predetermined distance from each sealed end **5, 6**.

Figure 7 shows the multi-channel single-tube sealed container and applicator with a cotton swab **9, 10** attached to each of its sealed end **5, 6** enclosing the score **7, 8**.

Figure 8 shows the end view of another embodiment of the multi-channel single-tube sealed container and applicator.

Figure 9 shows the multi-channel single-tube sealed container and applicator with both of its sealed ends **5, 6** broken allowing the substance to be discharged from their respective channels **2, 3** into the cotton swab **10** at the end of the multi-channel single-tube sealed container and applicator.

Figure 10 shows another embodiment of the multi-channel single-tube sealed container and applicator with multiple scores **11, 12** formed perpendicular to the housing at predetermined distances from each sealed end **5, 6**.

Figure 11 shows another embodiment of the multi-channel single-tube sealed container and applicator with multiple scores **13, 14** formed at a predetermined angle to the housing at predetermined distances from each sealed end **5, 6**.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Figure 1 shows the preferred embodiment of the housing 1 of the multi-channel single-tube sealed container and applicator before either of its two ends 5, 6 are sealed. The preferred embodiment of the multi-channel single-tube sealed container and applicator has a housing 1 that is in the shape of an elongated cylinder with two semi-spherical channels 2, 3 through the length of the housing 1 defined by the housing 1 and a dividing wall 4 within the housing 1.

Figure 2 shows the end view of the preferred embodiment of the multi-channel single-tube sealed container and applicator. The preferred embodiment of the multi-channel single-tube sealed container and applicator has a housing 1 that is in the shape of an elongated cylinder with two semi-spherical channels 2, 3 through the length of the housing 1 defined by the housing 1 and a dividing wall 4 within the housing 1.

Figure 3 shows the preferred embodiment of the multi-channel single-tube sealed container and applicator with one of its two ends 5 sealed.

Figure 4 shows the preferred embodiment of the multi-channel single-tube sealed container and applicator with its channels 2, 3 filled with different substances. The proportion of the substances can be controlled by filling the channels 2, 3 to different heights.

Figure 5 shows the preferred embodiment of the multi-channel single-tube sealed container and applicator with both of its ends 5, 6 sealed after its channels 2, 3 are filled with different substances.

Figure 6 shows the preferred embodiment of the multi-channel single-tube sealed container and applicator with a score 7, 8 formed at a predetermined distance from each sealed end 5, 6.

Figure 7 shows the preferred embodiment of the multi-channel single-tube sealed container and applicator with a cotton swab 9, 10 attached to each of its sealed end 5, 6 enclosing the score 7, 8 at each of the sealed end 5, 6. The cotton swabs 9, 10 may be in a rounded 10 or a pointed 9 shape at both ends 5, 6 or the cotton swab 9, 10 may be in a rounded shape 10 at one end 6 and in a pointed shape 9 at the other end 5.

Figure 8 shows the end view of another embodiment of the multi-channel single-tube sealed container and applicator. The channels 2, 3 though the housing may have a circular profile or any other predetermined profile. The proportion of the substances may be controlled by varying the cross-sectional area of the channels 2, 3.

Figure 9 shows the preferred embodiment of the multi-channel single-tube sealed container and applicator with both of its sealed ends 5, 6 broken at the scores 7, 8 thereby allowing the substance within the channels 2, 3 to be discharged from their respective channels 2, 3 into the cotton swab 10 at the end of the housing 1.

Figure 10 shows another embodiment of the multi-channel single-tube sealed container and applicator with multiple scores 11, 12 formed perpendicular to the housing 1 at predetermined distances from each sealed end 5, 6. The amount of substance released may be controlled by breaking the sealed ends 5, 6 at the appropriate scores 11, 12 on the end of the housing 1 that the substances are accumulated. ~~When the end of the housing 1 that the substances are accumulated are broken, the substances accumulated in the broken end are trapped and cannot be discharged, while the substances in the housing 1 will be discharged when the other end of the housing 1 is broken.~~

Figure 11 shows another embodiment of the multi-channel single-tube sealed container and applicator with multiple scores 13, 14 formed at predetermined angle to the

housing 1 at predetermined distances from each sealed end 5, 6. The amount of substance released may be controlled by breaking the sealed ends 5, 6 at the appropriate score 13, 14 on the end of the housing 1 that the substances are accumulated. When the end of the housing 1 that the substances are accumulated are broken, the substances accumulated in the broken end are trapped and cannot be discharged, while the substances in the housing 1 will be discharged when the other end of the housing 1 is broken.